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KOREAN PATENT ABSTRACTS

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(54) METHOD FOR MANUFACTURING A SEMICONDUCTOR DEVICE

(57) Abstract:

PURPOSE: A method for manufacturing a semiconductor device is provided to make a cell region have the same electrical characteristic as that of a test pattern region, by patterning an arbitrary active region in the test pattern region. CONSTITUTION: A pad oxidation layer and a nitride layer are formed on a semiconductor substrate. A photoresist layer pattern is formed on the nitride layer, protecting a portion reserved to be an active region in a cell region of the semiconductor substrate, an active region where a unit transistor is to be formed in a test pattern region and a portion reserved to be a dummy active region adjacent to both sides of the active region where the unit transistor is to be formed. The nitride layer and pad oxidation layer are etched by using the photoresist layer pattern as an etching mask. The semiconductor substrate is etched by using the photoresist layer pattern as an etching mask, to form a trench in which a cell region and a test pattern region have the same degree of integration. The photoresist layer pattern is eliminated. The first sacrificial oxidation is performed regarding the surface of the trench. A thermal oxidation layer is formed on the trench. An insulating layer is formed on the entire surface, and is eliminated by a chemical mechanical polishing(CMP) process to form an isolation layer for filling the trench. The nitride layer is eliminated by a wet etch method. The second sacrificial oxidation is performed regarding the active region of the semiconductor substrate afterward.



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